UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

STATE OF MINNESOTA
IRON RANGE RESOURCES AND REHABILITATION COMMISSION

BIWABIK QUADRANGLE
MINNESOTA-ST. LOUIS CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)

7579 III NW (BIWABIK NW)
7579 III NE (BIWABIK NE)
7579 II NW (EMBARRASS)
7578 IV NW (GILBERT)
7578 IV NE (PALO)
7579 III SW (MC KINLEY)
7579 II SW (AURORA)
7578 I NW (TURTLE LAKE)

92°22'30" 47°37'30" 92°15' 47°37'30"
2 180 000 FEET 2 200 000 FEET
410 000 FEET
370 000 FEET
47°30' 92°22'30" 47°30' 92°15'
20' 17'30"

R 16 W R 15 W
T 59 N T 58 N

Loka Lake
Wynne Creek
Sabin Lake
Hay Lake
Rice Lake
Pike River
Cedar Island Lake
Black Lake
Wynne Lake Lookout Tower
Giants Ridge Ski Area
Campground
The Narrows
Hudson Pit
Gravel Pit
Inactive Mine
Canton Mine
GARRASS MINE
Pineville
Belgrade
Biwabik (BM 1448)
Aurora
Bradley Island
Sediment Basin
Water Tower
Cem
Pit
Mine Dump
MINE DUMP

SUPERIOR NATIONAL FOREST
LAURENTIAN DIVIDE
EMBARRASS MTS
WHITE MINE

BOUNDARY FOREST
CORPORATE BOUNDARY
DULUTH, MISSABE & IRON RANGE RAILWAY
PIPELINE
CHANNEL
DIVERSION
MARKHAM CT.

BM 1480
BM 1482
BM 1481
BM 1408
BM 1446
BM 1383
BM 1436

Mapped, edited, and published by the Geological Survey

Control by USGS and NOS/NOAA

Topography from aerial photographs by multiplex methods
Aerial photographs taken 1947. Field check 1950

Polyconic projection 1927 North American Datum
10,000-foot grid based on Minnesota coordinate system, north zone

1000 meter Universal Transverse Mercator grid ticks, zone 15, shown in blue

Depth curves compiled from charts furnished by Minnesota Department of Conservation

To place on the predicted North American Datum 1983 move the projection lines 6 meters north and 14 meters east as shown by dashed corner ticks

UTM GRID AND 1985 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET
MN GN 0°30' 9 MILS 2° 36 MILS

There may be private inholdings within the boundaries of the National or State reservations shown on this map

SCALE 1:24 000
1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 KILOMETER

CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

ROAD CLASSIFICATION
Heavy-duty
Medium-duty
4 LANE 2 LANE
Light-duty
Unimproved dirt
U. S. Route
State Route

MINN
QUADRANGLE LOCATION

Revisions shown in purple and woodland compiled from aerial photographs taken 1981 and other source data
Partial field check by U. S. Forest Service. Map edited 1985

BIWABIK, MINN.
47092-E3-TF-024
1950
PHOTOREVISED 1985
DMA 7579 III SE—SERIES V872

INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—1985